

Work Order ID 142121

February 26, 2016 10:56:17 AM

142121

Qty 2 required for March 18

Page 1

March 18th to ship D205-633-011 X2

Item ID: D2563

Accept

N900040100

Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Step Weldment Assembly

Start Date: 3/7/2016 Start Qty: 8.00

8

Cust Item ID:

Required Date: 3/14/2016 Req'd Qty: 8.00

8

Customer:

Reference:

Approvals:

Process Plan:

SU

Date:

20160226

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D2563	Rev C								

100

Large Fab

0.00

100

Large Fab

Memo

0.07

Large Fab

1-Cut D2244 to 89.70" at 34 deg as per dwg D2563

2-Deburr ends

3-Weld (1 END CAP, LUG PLATES & MOUNTING ANGLE) as per dwg D2563 using DT 8343

4- Grind

110

QC9- Inspect visual per QSI004- Fusion Welds

0.00

110

QC

Memo

0.00

Quality Control

DP

16-2-29

PTD

BE16-03-08

DP 16-3-8

16-03-08 PD

B142121 X8

DQA:

Date:

16-04-13



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed

Date:

16/03/16

Work Order update only

Work Order: <u>142121</u> Part No. <u>D2563</u> NCR No. <u>16-5655</u>		DISPOSITION Rework ☐ Scrap ☒ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Cross tube ☐ Water Jet ☐ Engineering ☐ Machining ☐ Small Fab ☐ Prod. Eng. Coord. ☐ Quality ☐ Thermoforming ☐ Finishing ☐ Rec/Store/Packaging ☒ Other ☐ Large Fab ☐ Composite ☐ Supplier ☒							
Date: <u>16-2-29</u>		Step #: <u>110</u>		QTY Effective: <u>2</u>			MRB (QSI042) Approval DAS 9 9-89 <u>16-0229</u>				
Description Work Order Deviation				Disposition				Completed By <u>[Signature]</u> <u>16-2-29</u> Lead hand / Supervisor Approval Verification DAS 9 9-89 <u>16-0229</u> QC / QA Coordinator DAS Approval 9 9-89 <u>16-0229</u>			
while picking stock found QTY 2 D2244-116 with dents a different locations preventing the use of this material.				Scrap & pull pull from stock QTY 2 D 2244-116 B 117818							
Root Cause Environment ☐ No Re-verification ☐ Design ☐ Operator ☐ Doc/Data ☐ Offset/Setup ☐ Equip/Tooling ☒ Supplier ☐ Handling/Pre ☒ Training ☐ Material ☐ Use for Testing ☐ Internal Transport ☐ Poor Information ☐ Tribal Knowledge ☐ Rushing ☐ LOA ☐ Product Improvement ☐ Substation ☐ Process Improvement ☐ Past Expiry Date ☐ Manufacturing Process ☐ Misidentified ☐ Past Due ☐				FAULT CATEGORY Pressure/Forced ☐ Temperature/Cure ☐ Power Loss/Surge ☐ Positioned Wrong ☐ Bending ☐ Set-up ☐ Folio/Program ☐ Outside Dimensions ☐ Centre Not Concentric ☐ BOM/Route ☐ Grain ☐ Over/Under tolerance ☐ Cracks ☐ Broken/Damage/Defect ☒ Weld ☐ Part Incorrect ☐ Crimp/Kink/Ripple/Wave ☐ Inspection Incomplete/Unqualified ☐ Wrong Stock Pulled ☐ Part Lost/Missing ☐ Cuffs ☐ Contamination ☐ Out of Sequence ☐ Part Moved ☐ Crushing ☐ Countersink ☐ Off-set ☐ Drawing ☐ Heat Treat ☐ Cut Too Short ☐ Mislabeled ☐ Finish ☐ Wave/Twist in Tube ☐ Instructions Incomplete/Unclear ☐ Fit/Function ☐ Misread ☐ Marks/Chatter ☐ Drill Holes ☐ Misaligned/off center ☐ Turning Sequence ☐							
OTHER :											

Work Order ID 142121***142121***

Page 2

Item ID: D2563

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Step Weldment Assembly

Start Date: 3/7/2016 Start Qty: 8.00

8

Cust Item ID:

Required Date: 3/14/2016 Req'd Qty: 8.00

8

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120	QC5- Inspect part completeness to step on W/O	0.00							
120									
QC	Memo	0.00							
Quality Control									
130	Chemical Conversion Coat per QSI005 4.1	0.00							
130									
HandFinish	Memo	0.04							
Hand Finishing									
140	QC7-Inspect Chemical Conversion Coat	0.00							
140									
QC	Memo	0.00							
Quality Control									

8 16-03-08 RD8 16-3-8 AK

DAS 18 8-79 SVS 81 SVS

8 8 16-03-09

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

Work Order ID 142121

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Item ID: D2563 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Step Weldment Assembly
 Start Date: 3/7/2016 Start Qty: 8.00 ***8*** Cust Item ID:
 Required Date: 3/14/2016 Req'd Qty: 8.00 ***8*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150 *150* Large Fab Large Fab	Weld per dwg A/R Aluminum rod Batch: <i>m131562</i> Large Fab <i>m133816</i>	0.00				<u>8</u>	<u>0</u>	<u>BE16-03-09</u>	
	Memo	0.07							
	1-Inspect for foreign object per QSI 024								
	2-Weld Remainig End cap as per Dwg D2563 using DT 8343								
	3-Grind								
160 *160* QC Quality Control	QC10- Inspect visual per QSI004- ground welds	0.00				<u>8</u>			<i>DAS</i> <i>38</i> <i>9-89</i> <i>MAR 09 2016</i>
	Memo	0.00							
170 *170* QC Quality Control	QC5- Inspect part completeness to step on W/O	0.00				<u>8</u>			<i>DAS</i> <i>38</i> <i>9-89</i> <i>MAR 09 2016</i>
	Memo	0.00							

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause			FAULT CATEGORY			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____				
Misidentified ☐	Past Due ☐					

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval	
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

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Item ID: D2563 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Step Weldment Assembly
 Start Date: 3/7/2016 Start Qty: 8.00 ***8*** Cust Item ID:
 Required Date: 3/14/2016 Req'd Qty: 8.00 ***8*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
200	QC3- Inspect Part Finish	0.00							DAS 38 9-89
200 QC Quality Control	Memo	0.00				(8)			MAR 11 2016
210	Identify as per dwg & Stock Location: _____	0.00				8			SMB 16/3/13
210 Packaging Packaging	Memo	0.00							
220	QC21- Final Inspection - Work Order Release	0.00							16/3/15 J
220 QC Quality Control	Memo	0.01							

PPP 141403 X2
 PPP 142284 X2
 PPP 142980 X4

MCS MAR 15 2016

MAR 14 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QS1042) Approval		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐	OTHER : ☐			

Picklist Print

February 26, 2016 10:56:21 AM

Page 1

Work Order ID: 142121

142121

Parent Item: D2563

D2563

Parent Item Name: Step Weldment Assembly

Start Date: 3/7/2016

Required Date: 3/14/2016

Start Qty: 8.00

Required Qty: 8.00

Comments: IPP Rev:G 02.07.31 Re-format Location RF

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D2244-116

Manufactured No

100

Each

86.0000

1

8

D2244-116

STEP EXTRUSION

**

Location

Loc Qty

Loc Code

HALL

86

117818

86

WA003

-0.0000368

D2561

Manufactured No

100

Each

15.0000

2

16

D2561

Lug

**

Location

Loc Qty

Loc Code

WA003

15

140944

15

D2564

Manufactured No

100

Each

25.0000

2

16

D2564

Mounting Angle

**

Location

Loc Qty

Loc Code

WA003

25

139631

25

D2673-34

Manufactured No

100

Each

56.0000

1

8

D2673-34

End Plate

**

Location

Loc Qty

Loc Code

WA003

56

139627

56

16-2-29

10

BE 16-03-01

BE 16-03-01

BE 16-03-01

8

Picklist Print

February 26, 2016 10:56:21 AM

Page 2

Work Order ID: 142121

142121

Parent Item: D2563

D2563

Parent Item Name: Step Weldment Assembly

Start Date: 3/7/2016

Required Date: 3/14/2016

Start Qty: 8.00

Required Qty: 8.00

D2673-34

Manufactured No

150

Each

56.0000

1

8

D2673-34

End Plate

BE 16-03-09

Location

Loc Qty

Loc Code

WA003

56

139627

56

8

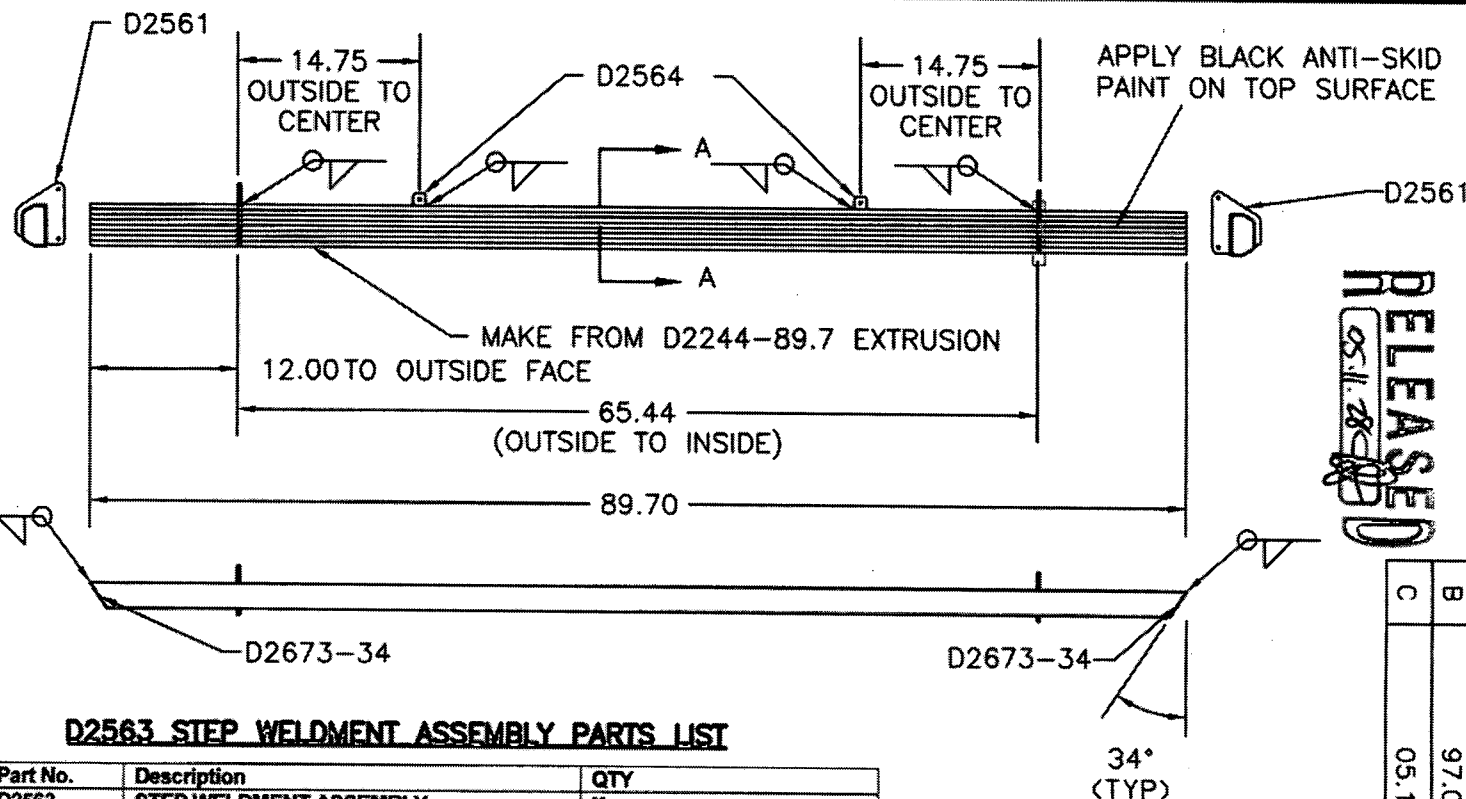


RELEASED
05.11.28

DESIGN	BW	DRAWN BY	44	DART AEROSPACE LTD
CHECKED	44	APPROVED	44	HAWKESBURY, ONTARIO, CANADA
DATE	05.11.14	TITLE	D2563	REV. C
			STEP WELDMENT ASSEMBLY	SHEET 1 OF 1
				SCALE 1:15
A	96.04.26	NEW ISSUE		
B	97.05.14	END CAPS CHANGED (WAS D2248)		
C	05.11.14	UPDATE NOTES		

20160226

149121



D2563 STEP WELDMENT ASSEMBLY PARTS LIST

Part No.	Description	QTY
D2563	STEP WELDMENT ASSEMBLY	X
D2244-89.7	EXTRUSION*	1
D2561	LUG PLATE	2
D2564	MOUNTING ANGLE	2

*cut per drawing

D2563 STEP WELDMENT ASSEMBLY NOTES

- 1) MAKE FROM EXTRUSION D2244
- 2) WELD PER DART QSI 004
- 3) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT ASSEMBLY WHITE (4.3.5.1) PER DART QSI 005 4.3
MASK OFF 0.50 ON EACH SIDE OF D2561 LUGS BEFORE
APPLYING BLACK ANTI-SKID PAINT PER DART QSI 005 4.4
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED